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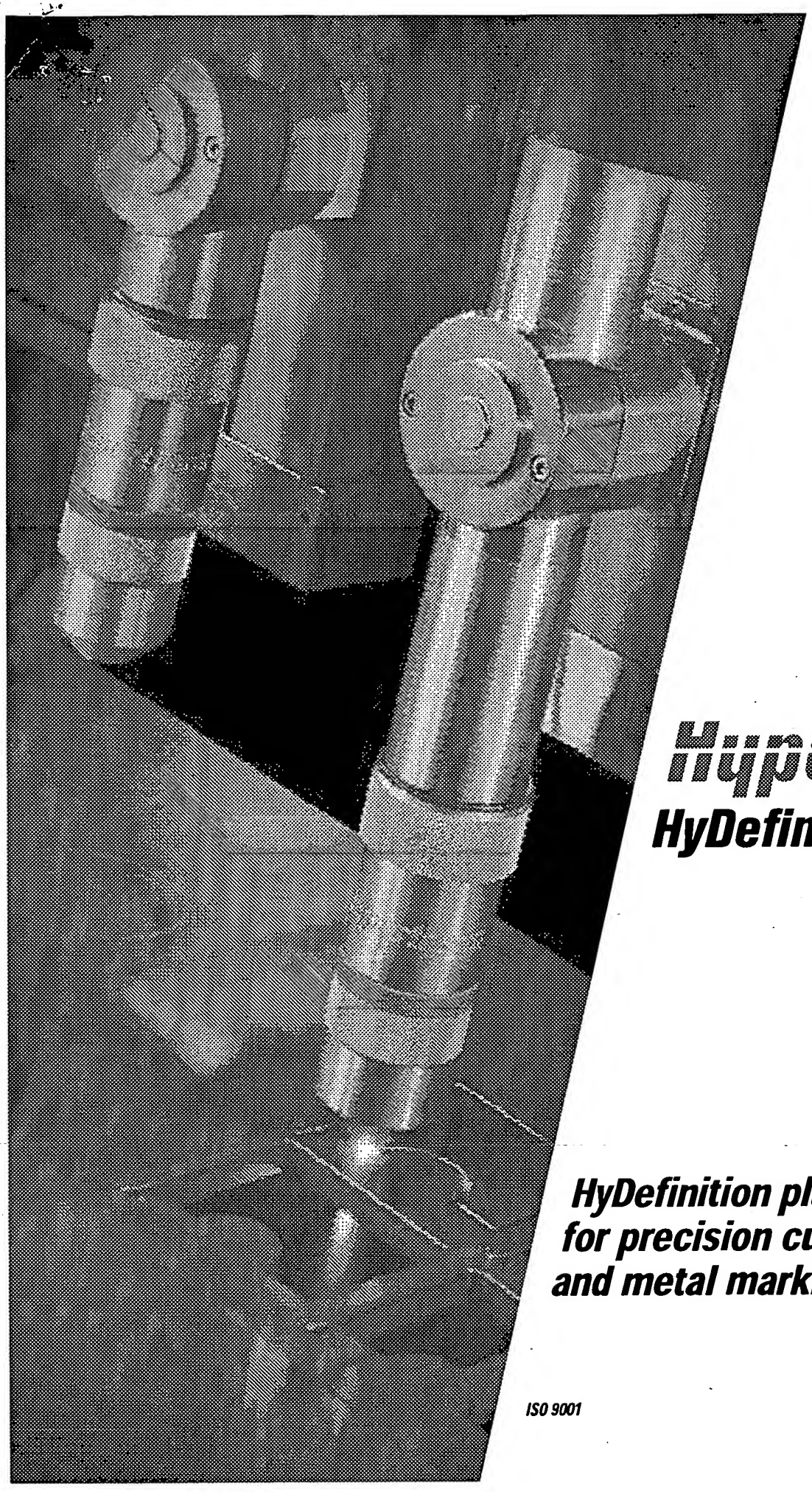


Hypertherm®

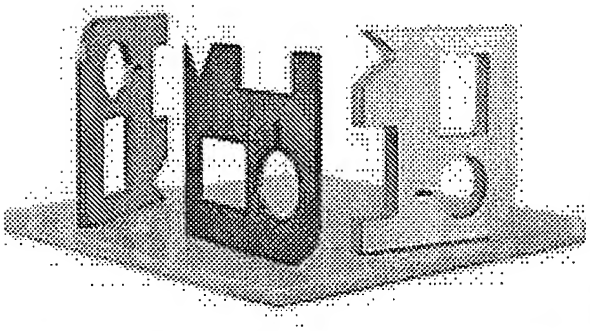
HyDefinition® HD4070

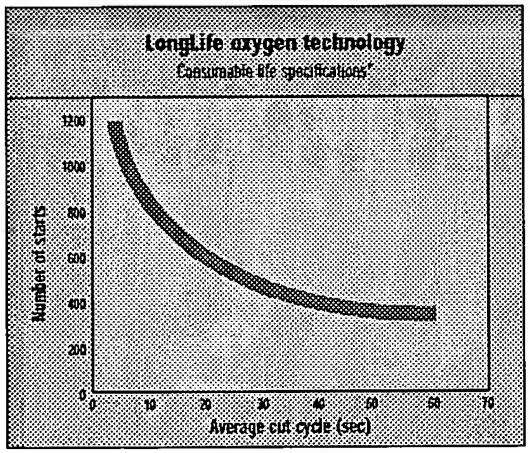
HyDefinition plasma for precision cutting and metal marking

ISO 9001

HD4070 HyDefinition 200-amp plasma cutting system with HyFlow™ vortex and LongLife® oxygen technologies

Redefining standards for precision, power and versatility





*Based on extensive laboratory testing at Hypertherm. Actual results may vary.

Built for power and precision

The HyDefinition HD4070 is the first HyDefinition system with 100% duty cycle at 200 amps, to deliver excellent cut quality on mild steel, stainless steel and aluminum from 26 gauge to ¾ inch (0.5 mm to 20 mm). It can pierce and cut up to 1-inch mild steel (25 mm). All at cutting speeds faster than lasers. The HyDefinition process produces a more constricted plasma jet for a higher arc density and more accurate cutting. As a result, the HD4070 delivers smooth, clean, precise cuts, virtually dross-free, to reduce secondary finishing.

Designed to optimize productivity

Optional dual torches operate independently from one power supply, reducing change-over time between cutting and marking operations. The durable and robust quick-disconnect torch with integrated leads can be installed or changed in seconds. Full CNC automation with optional "plug-and-play" Command*THC simplifies operator set-up and reduces training. Color-coded consumables and corresponding screen options provide foolproof guidance for matching amperage and material type with proper consumable set selection. A touch-screen display with multi-language capabilities facilitates training and allows optimum process control.

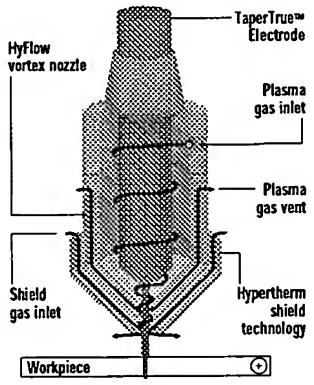
Created to be versatile

The HD4070 offers the flexibility to cut different materials at different speeds with a variety of gas combinations. The gas console can use seven inlet gasses while HyDefinition allows you to select marking, 30-, 70-, 100- and 200-amp consumables. The dual-torch option allows the operator to configure the system to perform two different processes simultaneously.

Engineered to be cost-effective

Two proprietary Hypertherm technologies allow precise, high-speed cutting with maximum consumable life.

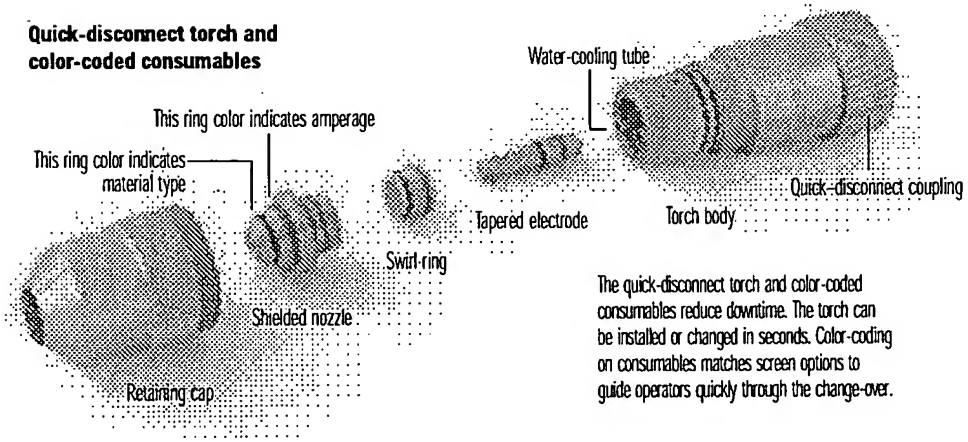
Patented HyFlow vortex technology



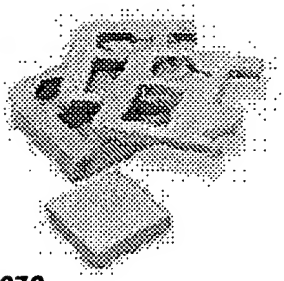
HyFlow vortex technology stabilizes the arc precisely in the center of the electrode. This consistency increases electrode and nozzle life.

The LongLife oxygen process involves precise control of key cutting parameters to gradually ramp up when starting the cut and ramp down when stopping. These are the times when consumable deterioration is most prevalent. As a result, the LongLife process significantly extends consumable life.

Quick-disconnect torch and color-coded consumables



The quick-disconnect torch and color-coded consumables reduce downtime. The torch can be installed or changed in seconds. Color-coding on consumables matches screen options to guide operators quickly through the change-over.



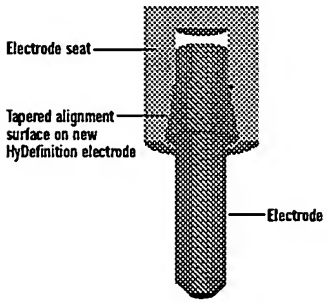
The HD4070 gives you unsurpassed accuracy and speed

No other system can provide the precision, speed, economy and ease of use of the HD4070. It gives high-volume metal cutting operations more flexibility to achieve greater productivity and profitability than ever before.

If you want to cut the widest range of materials with unprecedented accuracy and speed, choose the system that sets a new standard for precision and performance – the HyDefinition HD4070.

HyDefinition technology delivers consistent high-precision cut performance by utilizing special alignment surfaces on consumables. Precise consumable alignment translates to precise cutting performance and unsurpassed cut quality.

TaperTrue technology

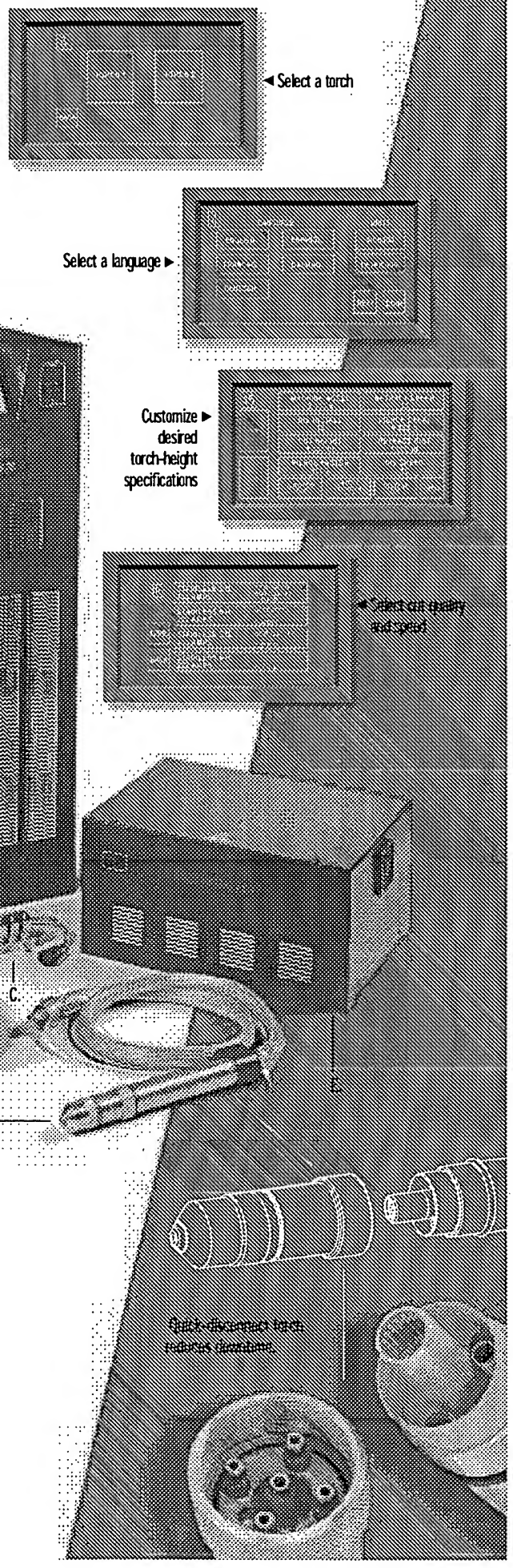


System features

- Dual 100-amp choppers produce up to 200 amps, 40 kW, at 100% duty cycle for precise cutting at fast speeds.
- PC-104 Pentium-class computer control ensures accurate process parameters for consistently high-quality cuts and long consumable life.
- Liquid-cooled quick-disconnect torch increases productivity.
- HyFlow vortex and LongLife oxygen technologies maximize consumable life and preserve cut quality.
- Solid-state ignition console increases system robustness and starting reliability while minimizing electrical noise.
- Automatic gas console eliminates errors and promotes ease of operation.

The system promotes ease of use with multi-language touch screens that virtually walk the operator though the process. Optional Command THC takes the guesswork out of setting proper torch-to-work height. The dual-torch option allows operators to configure the system for two different processes and simply select the appropriate torch from the display when needed.

Experience full automation with the PC-104 Pentium-class computer control. Easy-to-use touch-screens display all system control functions and plasma process information.



HyDefinition HD4070 system components

A: Power supply
B: Ignition console
C: Valve assembly
D: Machine torch and leads assembly
E: Automatic gas console

- Optional dual-torch configurations for additional cutting or marking.
- Optional full CNC automation with "plug-and-play" Command THC.
- Optional touch-screen display with multi-language capabilities.

HD4070 HyDefinition 200-amp plasma cutting system

Operating data

Production cutting capability (piercing):	1" (25 mm)

Material	Current (Amps)	Thickness (Inches/ga)	Approximate cutting speed (ipm)	Thickness (mm)	Approximate cutting speed (mm/min.)
Mild steel *O_2 plasma* *O_2-N_2 shield*	30	26	215	1	3555
		1/16	85	4	940
		1/4	25	6	635
	70	1/16	280	2	5715
		10	70	4	1520
		3/16	55	6	915
		1/4	35	8	710
		3/8	20	10	455
	100	1/4	145	6	3680
		3/8	95	8	2795
		1/2	65	12	1650
	200	3/8	130	10	3175
		1/2	90	12	2515
		5/8	77	15	2055
		3/4	65	20	1650
		1*	35	25*	890
Stainless steel *N_2 plasma* *N_2 shield*	45	20 GA	220	1	5460
		18	210	2	3935
		1/16	180		
		14	155		
H35-N_2 plasma *N_2 shield*	70	1/16	380	2	8890
		10	130	4	3050
		3/16	80	6	1270
		1/4	50	8	1140
		3/8	40		
	100	1/4	65	6	1650
		3/8	55	8	1525
		1/2	40	12	1015
	200	3/8	80	10	2030
		1/2	75	12	1905
		5/8	60	15	1650
		3/4	50	20	1270
Aluminum *Air plasma* *Air shield*	30	18	70	1	2030
		16	45		
Air plasma *CH_4 shield*	70	18	130	2	2920
		10	85	4	1905
		3/16	60	6	1140
		1/4	45	8	1015
		3/8	35		
H35-N_2 plasma *N_2 shield*	100	1/4	65	6	1650
		3/8	55	8	1525
		1/2	40	12	1015
	200	3/8	120	10	2995
		1/2	100	12	2665
		5/8	80	15	2160
		3/4	60	20	1520

*Cut quality is virtually dross-free up to 3/4-inch thick metal.

Marking *N_2 or H5 plasma* *N_2 shield*	Current (Amps)	Approximate marking speed (ipm)	Approximate marking speed (mm/min.)
Mild steel	7	250	6350
Stainless	7	120	3000
Aluminum	10	175	4500

Specifications

Input voltages (U_1)	200 V, 3-PH, 50–60 Hz; 220 V, 3-PH, 50–60 Hz; 240 V, 3-PH, 60 Hz; 400 V, 3-PH, 50–60 Hz; 440 V, 3-PH, 50–60 H; 480 V, 3-PH, 60 Hz; 600 V, 3-PH, 60 Hz
Input current (I_1)	200 VAC, 125 A; 220 VAC, 113 A; 240 VAC, 103 A; 400 VAC, 56 A; 480 VAC, 52 A; 600 VAC, 41 A
Output voltage (U_2)	200 VDC
Output current (I_2)	200 A
Duty cycle	100% at 40 kW, 122° F (40° C)
Maximum OCV (U_0)	311 VDC
Dimensions	39-1/2" (1000 mm) D; 24-1/4" (615 mm) W; 50-1/2" (1283 mm) H
Weight	1068 lbs (485 kg)
Plasma gas pressure**	O_2, N_2, H5, H35-N_2, Air 120 psi ±10 psi (8.3 bar ±0.7 bar)
Shield gas pressure**	N_2, O_2-N_2, Air 120 psi ±10 psi (8.3 bar ±0.7 bar)

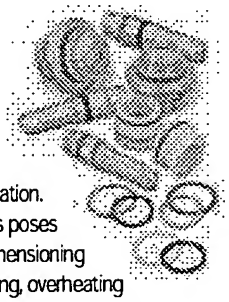
**Actual rate varies according to cutting requirements.

Superior warranty. The HD4070 is backed by a two-year warranty on the power supply and one-year coverage on the torch.

Worldwide service. Training and field support are available worldwide by factory-trained technicians.

Genuine Hypertherm Consumables

The only way to ensure maximum performance



Genuine Hypertherm parts are designed to optimize performance for each torch, power supply and application. Using anything other than genuine Hypertherm parts poses a risk to your cutting system's reliability. Imperfect dimensioning may lead to expensive problems such as torch shorting, overheating and system failure. Using only Hypertherm consumables will safeguard your system, reduce rework costs and save time spent changing parts.

For additional information, call:
TOLL-FREE IN THE USA & CANADA: 1-800-643-0030

Hypertherm

The world leader in plasma cutting technology™

www.hypertherm.com

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